

Behavioral Health is Essential To Health



Prevention Works



Treatment is Effective



People Recover





Differential Diagnosis of Psychosis

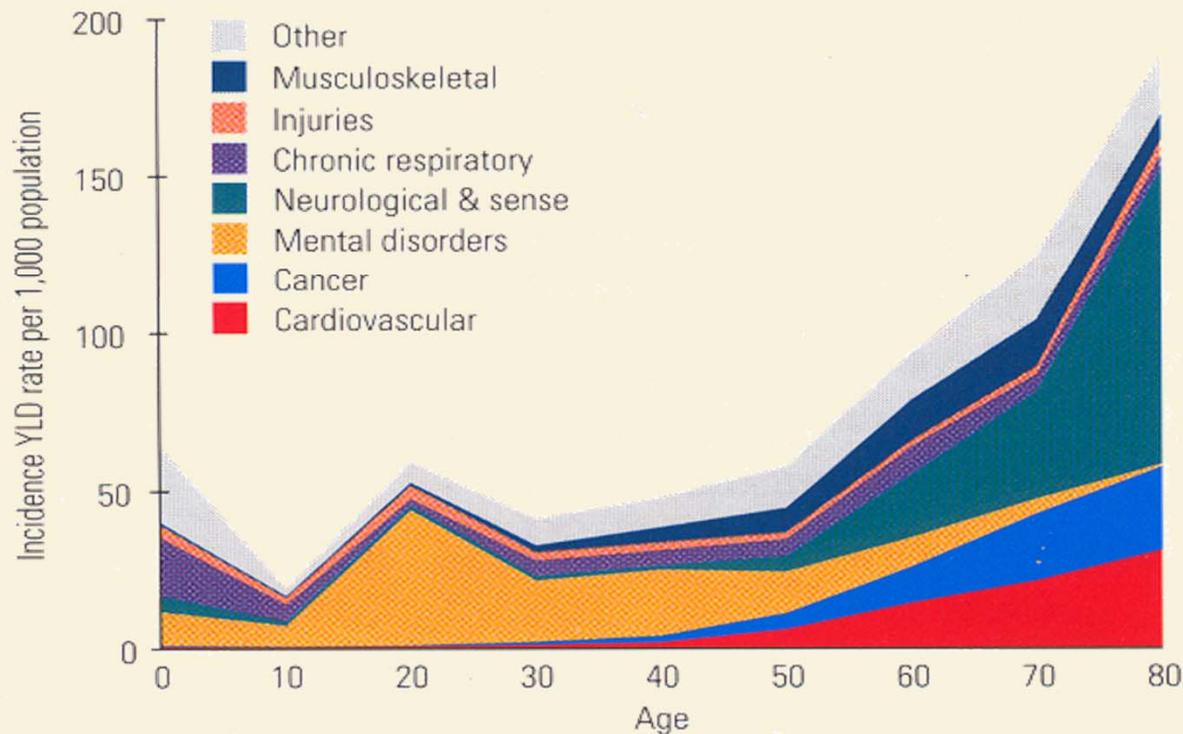
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Figure 6 Incident YLD Rates per 1,000 Population by Age and Broad Disease Grouping, Victoria 1996



Mental illness and substance use disorders account for 60% of the non-fatal burden of disease amongst young people aged 15-34 (Public Health Group 2005)

- 75% of mental health problems occur before the age of 25 (Kessler et al 2005)
- 14% of young people aged 12-17, and 27% of young people aged 18-24 experience a mental health problem in any 12 month period (Sawyer et al 2000, Andrews et al 1999)



Who EPI Programs Accept (typical but varies program to program)

- Age 15-25, consistent with psychosis risk, schizophrenia related psychosis or bipolar psychosis. (Variation across programs regarding age)
- First psychosis within last 12 months (some go a few as 6, others go 5 years)
- People screened out are supported to engage with appropriate services
- No IQ under 70, symptoms due to medical condition or clearly due to illicit drugs.
- Many programs using SCID and/or SIPS for eligibility criteria

Symptoms of Acute Psychosis

- ➔ Hallucinations
- ➔ Delusions
- ➔ Disorganized speech and behavior
- ➔ Negative Symptoms
Cognitive & sensory problems

Inability to tell what is real from what is not real

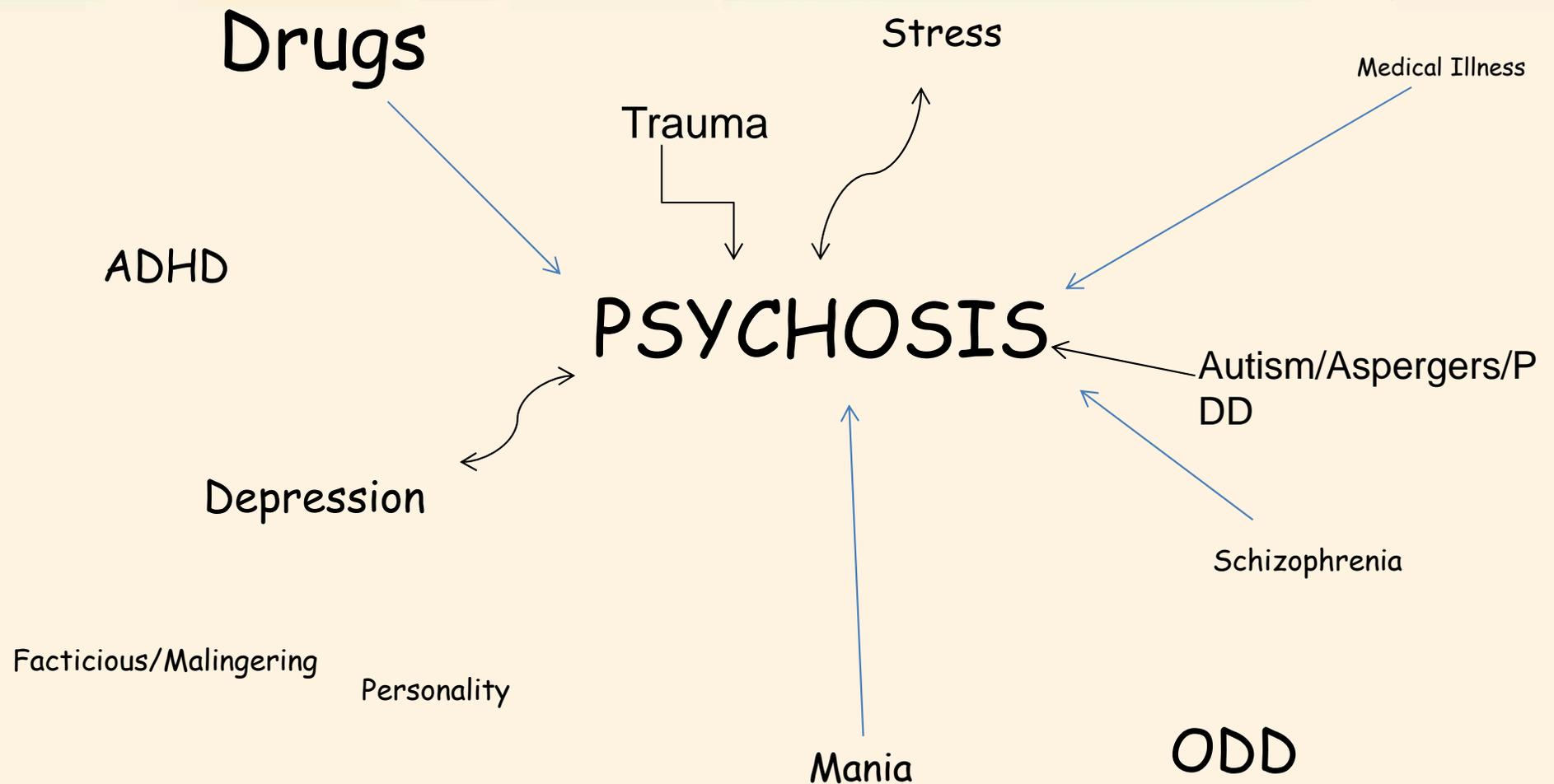


What Can Cause Psychosis?

- Vulnerability
- Frontal lobe epilepsy
- LOTS of medical conditions
- Schizophrenia
- Bipolar disorder
- Depression
- Anxiety disorder
- Bullying
- Steroids
- Stimulants
- Methamphetamine
- Brain tumors
- Trauma
- Sleep deprivation
- Severe stress
- Sensory deprivation
- And others...



Symptoms of psychosis do not imply diagnosis of schizophrenia



Differential Diagnosis of Psychotic Disorders

Psychosis vs. “psychosis”

- Challenging dynamic
- Qualities of Psychosis include:
 - Egosyntonic and yet role functioning impairment
 - Bizarre
 - Frequent (daily for hours)
 - Described as outside of self (hallucinations)
 - Objective findings (mental status changes: thought processes, emotional expression)
- Qualities of “psychosis” include:
 - Egodystonic and less role impairment
 - Nonbizarre
 - Episodic (once a day), brief
 - Described as “inside” of self
 - Visual hallucinations
 - Lack of objective findings on MSE
 - Alternative meaning or value

Differential Diagnosis of Psychotic Disorders

- Prevalence in clinical populations:
 - Adolescence 8%
 - Children 4%
- Children and adolescents with psychosis had the following conditions:
 - Major Depressive Disorder 41%
 - Bipolar Disorder 24%
 - Depression NOS 21%
 - Schizophreniform 14%

Findling & Schultz, 2005. Juvenile Onset Schizophrenia

Differential Diagnosis of Psychotic Disorders

- Benign Psychosis
 - Sleep and stress
- DSM rules on Differentials (SUD/MED)
- Medical symptoms to explore
 - Fidgety
 - Catatonia
 - Tremor
 - Protruding eyeballs
 - Attention/Concentration problems
- Psychosis associated with a medical condition
 - Migraines
 - Delirium
 - Seizures

Differential Diagnosis of Psychotic Disorders

- Must rule these out as primary Dx for EASA (Also stressed in DSM)!
 - 30 Days
- Psychosis associated with psychotropic medication
 - Stimulants (RARE)
 - Steroids
- Substance Use
 - Methamphetamine
 - Cannabis

Differential Diagnosis of Psychotic Disorders: Drugs

- Most complicated and challenging
- Quite common
- Presence of active substance use
- Very similar to the quality of psychosis seen in major thought and mood disorders
- Can be co-morbid
- Late adolescent to young adult
- Acute onset and speedy resolution
- Visual hallucinations, disorientation, labile mood and affect

Cannabis

- Increases the risk of schizophrenia by 6 times
- Exacerbates the symptoms
- Earlier age of onset
- More psychotic symptoms
- Poorer response to medications
- Poorer outcome

Cannabis



- Cannabis psychosis
 - odd and bizarre behavior
 - violence and panic
 - less thought disorder
 - better insight
- People who use cannabis on a daily basis were 2.4 times more likely to report psychotic symptoms than non-users

Methamphetamine

- Methamphetamine is an addictive stimulant drug
- releases high levels of dopamine
- damages brain cells that contain dopamine and serotonin
- Psychotic sx's. Occur in about 40% of meth depend. Persons
- Psychotic sx's. Can occur in response to stress

Methamphetamine

- Methamphetamine psychosis:
 - Can look similar to schizophrenia or bipolar
 - Extreme irritability
 - Visual hallucinations
 - Aggressive behavior
 - Paranoia
 - Post-episode depression and withdraw

Psychosis in drugs

- CAN YOU TELL THE DIFFERENCE?
- 1st episode differentials (premorbid):
 - Family HX of substance abuse/dependence
 - DX of substance abuse/dependence
 - Anti-Social personality traits or DX
 - More likely to have friends
 - Age



Psychosis in drugs

- 1st episode differential (current episode)
 - Acute onset
 - Positive UDS
 - Visual Hallucinations
 - Increased insight into psychosis
 - If delusions present more likely to be paranoid.
 - Increased agitation and violence
 - Less negative symptoms

Clinical Summary/Treatment

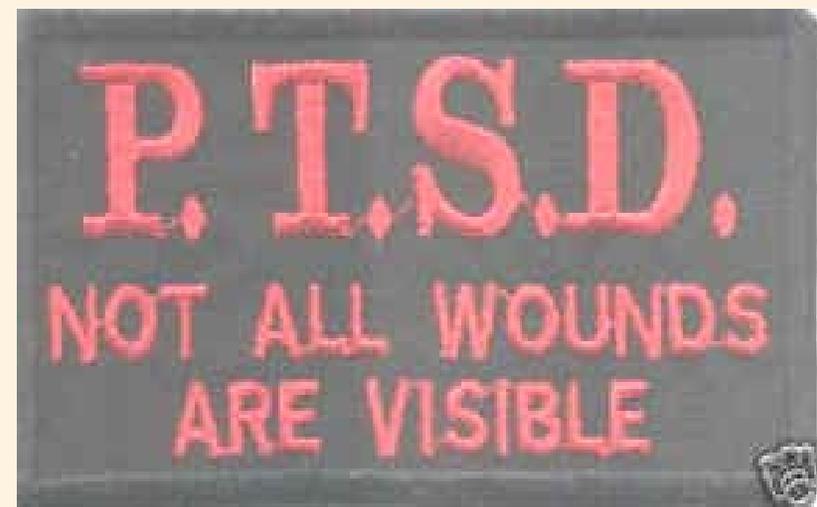
- Substance misuse/abuse is common among adolescents. 1 in 10.
- Challenging to treat substance use, but the psychosis is treated with a short course of neuroleptics
- Trans-theoretical stage of change model has the best evidence (e.g. harm reduction with precontemplative individuals.)

Differential Diagnosis of Psychotic Disorders: Anxiety/Trauma

- Quite common
- NOT similar to the quality of “psychosis” seen in major thought and mood disorders
 - Fully-formed visual hallucinations
 - Transient
 - Auditory experiences or intrusive thoughts
- Middle to late childhood to early adolescence
- Acute onset and speedy resolution
- Intact or understandable social behavior
- Minimal objective findings on MSE

Post Traumatic Stress Disorder (PTSD)

- Trauma
- Nightmares
- Flashbacks
- Hypervigilance
- Intrusive memories
- Psychosis
- Avoidance
- Mood changes
- Anxious/helplessness
- 6 in 100 for boys, 15 in 100 for girls
- Therapy/medication



PTSD

- Post-Traumatic Stress Disorder
 - Less response to medications
 - Improved with sensitive psychosocial interventions
 - Hallucinations in 75-95% of clients
 - psychosis is "trauma" related
 - Impulsive, aggressive, and self-abusive behaviors are present
 - Intact social relatedness

Clinical Summary/Treatment

- Often misdiagnosed as schizophrenia
 - Role function changes
 - Degree of stress it causes the clinician
- The psychosis is less responsive to neuroleptics
 - Multiple medication trials
 - Polypharmacy
 - Over-medicated
- Improved with sensitive psychosocial interventions-DBT, supportive therapy, time



Autism Spectrum Disorders

- Developmental delays in speech and motor skills
- Poor eye contact
- Poor breast feeding
- Poor sleepers
- Poor social skills
- Challenged in team sports
- Expressive and receptive language problems
- Do not invite others into their experiences
- Narrow interests
- Poor emotional response
- Function better with rigid routine
- Hand flapping when excited
- EPP may do more harm than good.

Types of Mood Episodes

- Manic Episode
 - *Essential feature:* Distinct period of elevated mood and increased activity/energy lasting at least a week
 - *Symptom count:* Three other manic symptoms during that period
 - *Impairment:* The mood disturbance is *severe*
- Hypomanic Episode
 - *Essential feature:* Distinct period of elevated mood and increased activity/energy lasting at least four days
 - *Symptom count:* Three other manic symptoms during that period
 - *Impairment:* The mood disturbance is *not severe*
- Major Depressive Episode
 - *Essential feature:* Five depressive symptoms that persist for at least two weeks

Unipolar Affective Disorder (MDD)

- Sad, irritable mood
- Disrupted sleep cycles
- Lack of interest in pleasurable activities
- Change in appetite/weight
- Sleep disturbance
- Agitation/retardation
- Fatigue
- Worthlessness/or excessive Guilt
- Concentration problems
- Thoughts of death
- Social isolation
- Poor school work
- Two weeks of symptoms/Most of day every day. Suicide thoughts the exception.
- Not due to Bereavement/drugs or medication condition
- 1 in 12 will have MDE
- 1 in 14 suicide
- Alcohol and Drug use
- Medication/therapy

Bipolar Affective Disorder (manic-depression)

- CHANGE in mood resulting in clinical significance.
 - Grandiose
 - Irritable (EXTREME)
- Increased Self-Esteem
- Sleeplessness
- Pressured Speech
- Racing Thoughts
- Distractability
- Increased energy/activity/agitation
- Over involvement in pleasurable activities (Hypersexual/Money spending)
- Psychosis
- "This is NOT my child"
- Poor judgment
- 1 in a 100
- Rapid mood changes for several days/1 week duration (4 days hypo)
- Medication/therapy

Differential Diagnosis of Psychotic Disorders

- Affective psychosis:
 - Most common psychotic conditions of childhood
 - Higher rate of psychosis than their adult counterparts
 - Psychosis often related to the mood disorder
 - Hallucinations are more common in children
 - Observed in one-third to one-half of depressed children
 - Delusions are more common in adolescents
 - Mania is rare in children.

Findling & Schultz, 2005. Juvenile Onset Schizophrenia



“...the basic defect in schizophrenia consists of a low threshold for (mental) disorganization under increasing stimulus input.”

Epstein and Coleman, 1970

Schizophrenia

- Mental Health disorder which affects language, emotion, reasoning, behavior, and perception
- Great variety in symptoms
- Symptoms include:
 - Hallucinations and delusions
 - Disorganized speech
 - Poverty of speech/behavior
 - Impaired goal-directed behavior

Associated Features

- Lack of Insight (Anosognosia)
- Sleep difficulties.
- Abnormal Movements (pacing, rocking, odd movements, rituals, or slow movements)
- Anxiety Disorders (OCD, Panic, Phobia)
- Substance Abuse (90% Nicotine, 70% ETOH or other illicit drugs; early intervention may impact this)
- Lowered Life Expectancy (suicide risk, poverty, cardiovascular disease, lung cancer, inability to find and maintain help).

Biologic risk factors

- Genetic risk
 - Perhaps not as large as we thought.
 - IQ
- Non-genetic biologic risk
 - Prenatal infections (influenza)
 - Prenatal toxic exposure (lead)
 - Traumatic (head trauma, prenatal period to adolescence)
 - Stress of mother during 1st trimester.
 - Nutrition (starvation, omega-3 deficiency)
 - Heavy cannabis, other psychotogenic drug exposure
 - Cat ownership
- Non-heritable genetic risk
 - Age of father >50; probably natural mutations in spermatogenesis

Symptoms of schizophrenia

- Hallucinations
 - 75% auditory hallucinations
- Delusions
 - 1/5 delusions
- Thought Disorder
- Negative symptoms
- Cognitive and Behavioral Changes

Negative symptoms

- The most common negative symptoms seen in children:
 - Affective flattening
 - Poverty of speech
 - Inability to experience pleasure
 - No interest in relating to people
 - Lack of initiative
 - Inattentiveness

Cognitive impairments

- Most common neurocognitive impairments:
 - Working memory
 - Verbal processing
 - Executive functions
 - Sensory deficits
 - Social cognition

Schizophrenia

- Occurs in late adolescence/early adulthood
- Socioeconomic status is irrelevant
- Stress-Vulnerability Model
- Insidious course with wide range of variability in prognosis.

e.g. Disease Genes,
Possibly Viral
Infections,
Environmental
Toxins

Early Insults

Social and
Environmental
Triggers

Increasing Positive symptoms



Vulnerability: CASIS

Disability

Cognitive
Deficits

Affective Sx:
Depression

Social
Isolation

School
Failure

Brain
Abnormalities

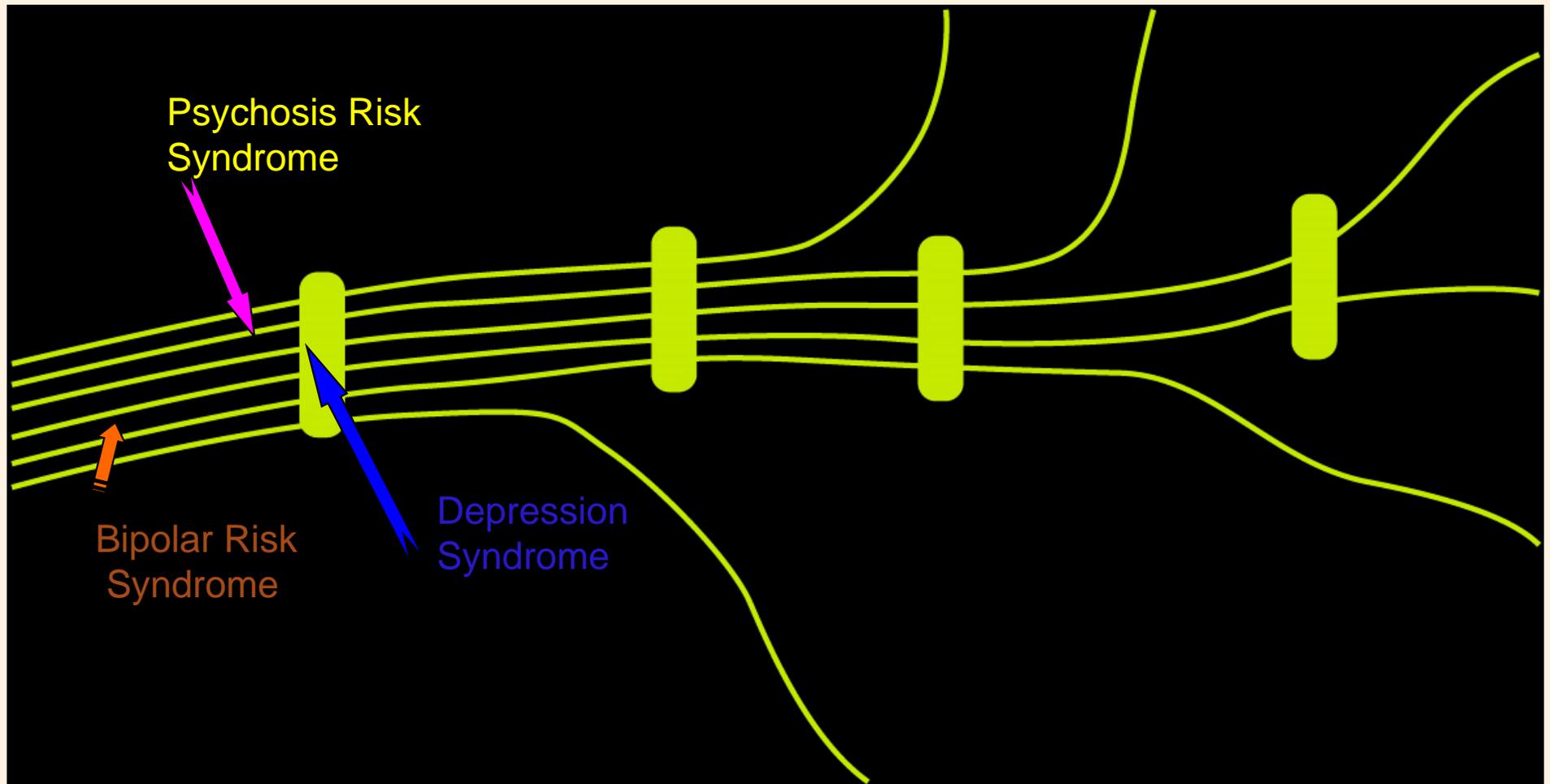
Structural
Biochemical
Functional



After Comblatt, et al., 2005

THE GRAND DSM RAILROAD

(Used with permission from Pat McGorry)



Differential Dx

- Schizoaffective D/O: Presence of symptoms that meet criteria for MDE or manic episode and those episodes are present the majority of the time that active or residual psychotic symptoms are present. 6 months not required.
- Schizophrenia: No mood episodes or if mood episodes present they are present minority of time
- Bipolar or MDD with Psychosis: Psychosis occurs exclusively during manic or MDE

The Schizophrenia "Prodrome"

- ~90% of patients with schizophrenia experienced a "prodromal stage"
- ~35% of persons who experience prodromal symptoms will develop a psychotic disorder
- Characteristic symptoms: at least one of the following in attenuated form with intact reality testing, but of sufficient severity and/or frequency so as to be beyond normal variation:
 - (i) delusions
 - (ii) hallucinations
 - (iii) disorganized speech

Perkins and Lieberman Prodrome and First Episode e in Essentials of Schizophrenia APA Press, Washington DC 2011



Thought Content

Attenuated delusion

A 16 year old high school student starts to sit in the back of the class, because if she sits in the front she has an uncomfortable feeling that the other students are whispering about and laughing at her. She knows this is "silly," but feels better in the back, because of how real it feels.

Delusion

A 17 year old high school student believes that other people are talking about her, reading her mind, and making fun of her where ever she goes. She is sure this is happening, and she is isolating herself because she is uncomfortable in public.



Perception

Attenuated hallucination

About 2 or 3 times a week a 16 year old waiter sees colors on the wall that seem to be distorted, or textures and waves on the wall. He has started hearing beeping sounds that can last for minutes, and last week he heard a momentary (a second or two), faint, unintelligible voice.

He is not sure, but thinks it is most likely his mind playing tricks on him.

Hallucination

On an almost daily basis a 19 year old waiter hears voices speaking to him. They speak to him outside of his head. They refer to him in the third-person and sometimes criticize him, or tell him to do something silly, like "pat the mat."

He believes these voices are real and he is very frightened of them.

Symptoms of EFEP Schizophrenia related conditions

- Bizarre and uncharacteristic behavior, beliefs (Delusions) or speech.
 - *FYI: Kids are bizarre in general, must compare with other friends and social group.*
 - Obtained via family report, direct observation, interview. Look for overvalued ideas, magical thinking and ideas of reference.
 - “Do you have feelings or beliefs (religion, philosophy, politics) that are important to you?” Do your friends and family tell you that they are unusual, or weird.”
 - “Have you felt that things around you have a special meaning for just you”. Specifically explore musicians, websites and TV.



Symptoms of EFEP Schizophrenia related conditions

- Thought Insertion, Withdrawal, & Broadcasting:
- These are the first rank delusions!
 - “Do you ever feel that someone or something outside of yourself was controlling your thoughts?”
 - “Did you ever feel that certain thoughts that were not your own were put in your head?”
 - “Did you ever feel as if your thoughts were being broadcasted out loud so that other people can actually can hear what you were thinking?”
 - “Did you ever believe that someone could read your mind?”
 - “Do you ever change your thoughts so people cannot read them?”

Symptoms of EFEP Schizophrenia related conditions

- Auditory Hallucinations
- *"Did you ever hear things that other people couldn't hear, such as noises or the voices of people whispering or talking?"*
 - *"Does it sound clearly like my voice speaking to you now?"*
 - Localized outside of the mind (not necessarily head) usually in 3rd person with running commentary or multiple voices talking to each other.
 - They are egodystonic initially although can become egosyntonic. Also tend to be incongruent to mood.
 - Individual usually is able to identify gender but is unsure who it is.
 - Usually they are diminished with other sounds and do not wake individual while sleeping.

Symptoms of EFEP Schizophrenia related conditions

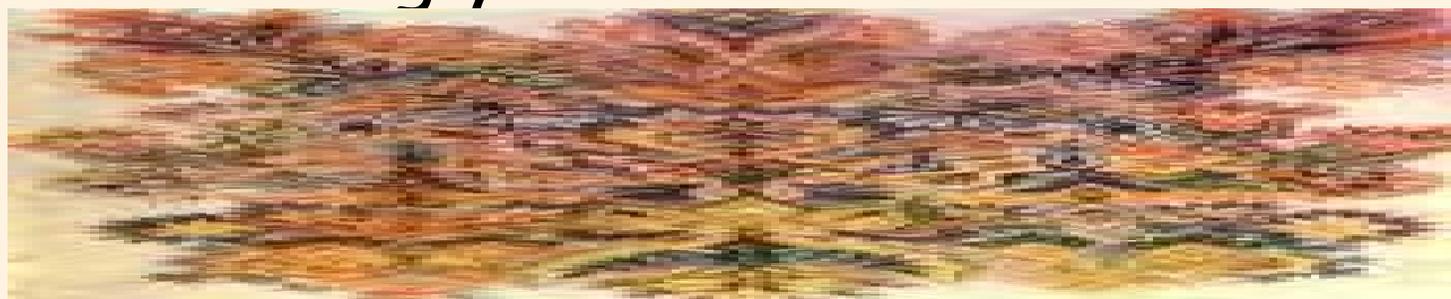
Auditory Hallucinations (cont'd.)

- Ask questions that get at
 - locality: “where do you think it is coming from?”
 - frequency:
 - content:
 - time of day more likely to hear:
 - what helps? what makes them worse?
 - mood at time of hallucination:
 - severity
 - explanatory model
- This will help differentiate between mood disorders and PTSD



Symptoms of EFEP Schizophrenia related conditions

- Thought Disorganization
 - Obtained by family, friends and/or teachers.
 - Direct observation and interview:
“Do people ever tell you they can't understand you or seem to have difficulty understanding you?”



Other symptoms that need exploration.....

- Depersonalization/derealization:
 - “Do you ever get a sense that you are not real or that your life is all a dream?”
- Heightened sensitivities or visual distortions:
 - “Do you ever feel that your mind, eyes or ears are playing tricks on you?”
 - Anomalous experiences more common in kids.
- Increased fear, anxiety or paranoia:
 - “Do you ever feel that you have to pay close attention to what’s going on around you in order to feel safe?”
 - You must rule out if this is a real fear or more consistent with paranoia.

Other symptoms that need exploration.....

- Functional Decline
 - In Schizophrenia related disorders this happens prior to onset of perceptual symptoms.
 - Obtain good history from family and client to get at this.
 - Ask specifically about school/work changes and declines.
 - Ask about changes in time spent with friends.
 - Ask about self care
 - Explore for premorbid depression and anxiety.
 - Explore previous drug use.

Family History

- Monozygotic twins: 48-50% increase likelihood.
- Parents and Siblings: 10%-15% increase
- Grandparents, Aunts & Uncles: 2%

Diagnosis Philosophy

- At the early stages of a psychotic illness prognosis:
 - is variable generally and uncertain for the individual patient
 - may be influenced by treatment (both positively and negatively)
- The goals of treatment are:
 - symptom remission
 - social and vocational functional recovery
 - development of an illness management strategy that maintains recovery

6 Steps to Differential Dx

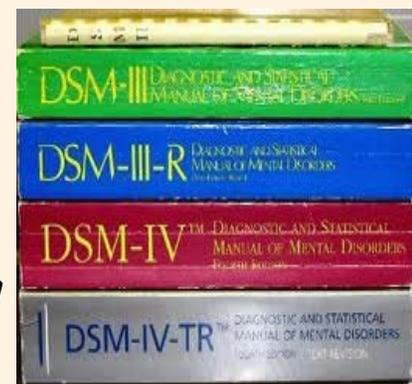
- 1) Rule out behavioral explanations for the behavior (e.g. malingering).
- 2) Rule out substance etiology (illicit and legal substances).
- 3) Rule out primary medical condition.
- 4) Determine the primary disorder.
- 5) Determine if symptoms meet frequency and severity level, if not consider adjustment or other specified category.
- 6) Establish if definition of mental disorder is met!

Diagnosis Philosophy

- Psychosis and Schizophrenia-spectrum disorders are heterogeneous
 - Symptom characteristics
 - Etiology
 - Course
- People who develop Psychosis and schizophrenia-spectrum disorders are heterogeneous
 - Experience (especially with the illness)
 - Personality
 - Culture
 - Resources

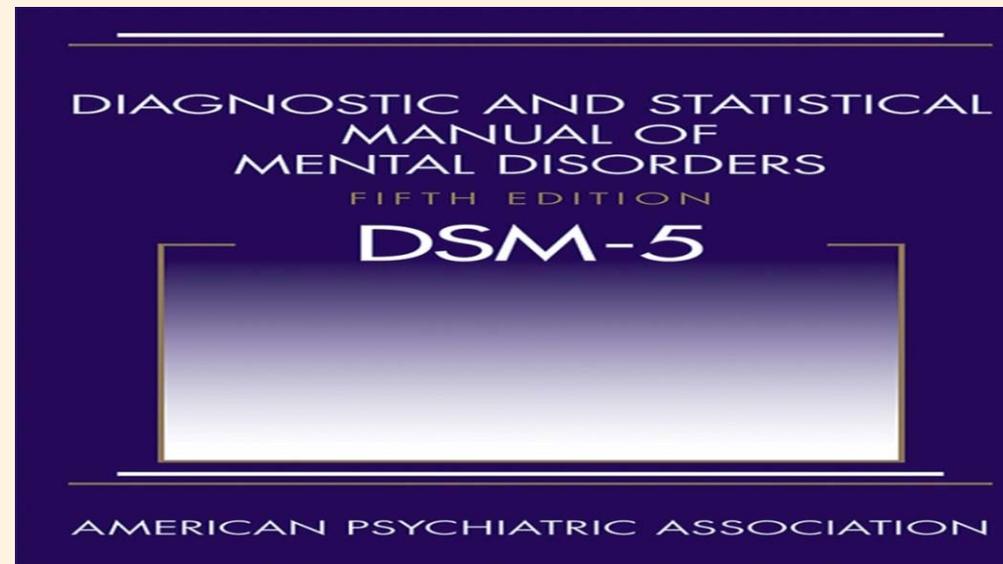
DSM 5?!

- Will not include A Psychosis Risk Syndrome
- Schizophrenia
 - Removal of special attribution of bizarre delusion and first rank AH. Now requires 2 of Criteria A symptoms and at least 1 core positive symptom.
 - Removal of subtypes
 - Does have APS specifier under new category.



DSM 5?!

- Schizoaffective DO
 - Mood episode no longer required to be present throughout duration of condition
- Delusional Disorder
 - Elimination of non-bizarre requirement.
- Catatonia
 - Now a specifier



DSM--5 Diagnostic Criteria for Schizophrenia

A. *Characteristic symptoms: 2 or more of the following*

- 1) *Delusions*
- 2) *Hallucinations*
- 3) *Disorganized Speech (e.g. frequent derailment or incoherence)*
- 4) *Grossly disorganized or catatonic behavior*
- 5) *Negative Symptoms (l.e. affective flattening, alogia or avolition)*

B. *Social or Occupation Dysfunction for a significant portion of the time since onset of disturbance*

C. *Duration: 6 Months*



DSM--5 Diagnostic Criteria for Schizophreniform

A. *Characteristic symptoms: 2 or more of the following*

- 1) *Delusions*
- 2) *Hallucinations*
- 3) *Disorganized Speech (e.g. frequent derailment or incoherence)*
- 4) *Grossly disorganized or catatonic behavior*
- 5) *Negative Symptoms (l.e. affective flattening, alogia or avolition)*

B. *Social or Occupation Dysfunction for a significant portion of the time since onset of disturbance*

C. *Duration: 1 – 6 months*



DSM--5 Diagnostic Criteria for Schizoaffective Disorder

- A. *An uninterrupted period of illness during which time, at some time, there is either a Major Depressive Episode or a Manic Episode concurrent with symptoms that meet Criterion A for Schizophrenia*
- B. *During the same period of illness, there have been delusions or hallucinations for at least 2 weeks in the absence of prominent mood symptoms*
- C. *Symptoms that meet criteria for a mood episode are present for a substantial portion of the total duration of the active and residual periods of the illness.*

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